

1 WHAT IS CLAIMED IS:

1. An article made of a bulk-solidifying amorphous alloy having improved durability and fatigue resistance, comprising:

an exterior surface; and

5 a plurality of deformations in the exterior surface, wherein the deformations result from a mechanical surface treatment process applied to the exterior surface.

2. The article of claim 1 wherein the surface treatment process is a shot-peening process.

10 3. The article of claim 2 wherein the shot-peening process is applied to a substantial portion of the exterior surface.

4. The article of claim 2 wherein the shot-peening process comprises a shot having a diameter of approximately 0.006 inches to 0.040 inches.

15 5. The article of claim 1 wherein the treated article is a golf club face insert.

6. The article of claim 1 wherein the surface treatment process is a laser shock peening process, wherein the deformations are formed by a shock wave that ablates a portion of the exterior surface.

20 7. An article of bulk-solidifying amorphous alloy having an exterior surface with a plurality of deformations therein, wherein the deformations alter the exterior surface such that the article has improved durability and fatigue resistance as compared to a substantially identical article lacking the deformations in the exterior surface.

25 8. A method of improving the durability and fatigue resistance of an article made from bulk-solidifying amorphous alloy, comprising:

applying a shot-peening process to at least a portion of an exterior surface of the article; and

30 creating a plurality of deformations in the exterior surface by mechanically compressing a plurality of shots against the exterior surface.